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October 13, 2006

Date of Signature

Re:	Application of:	Vasquez et al.
	Serial No.:	09/811,906
	Filed:	March 19, 2001
	For:	Ethernet Cross Point Switch for Connecting Multiple Network Sections with Different Speeds within Physical Layer Protocol
	Group Art Unit:	2143
	Confirmation No.:	8962
	Examiner:	Alina A. Boutah
	Our Docket No.:	1501-0029

**TRANSMITTAL OF SECOND BRIEF ON APPEAL**

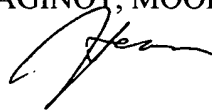
Please find for filing in connection with the above patent application the following documents:

1. Second Appeal Brief; and
2. One (1) return post card.

The Notice of Appeal was received on August 14, 2006, in the U.S. Patent and Trademark Office, and the due date for the Appeal Brief is October 14, 2006 (M.P.E.P. 1205.01). Since the due date for filing the Appeal Brief falls on October 14, 2006, the Appeal Brief is being timely filed on Friday, October 13, 2006.

No check is enclosed. In compliance with M.P.E.P. 1204.01, we ask that the Commissioner apply the previously paid appeal fee to the Second Appeal Brief herewith, as no final Board decision has been made on the Appeal filed January 17, 2006. However, please charge any deficiency, or credit any overpayment to Deposit Account No. 13-0014.

Respectfully Submitted,  
MAGINOT, MOORE & BECK, LLP



October 13, 2006

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Enclosures



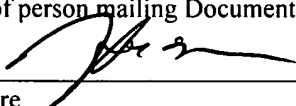
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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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**SECOND BRIEF ON APPEAL**

Sir:

This is an appeal under 37 CFR § 41.31 to the Board of Patent Appeals and Interferences of the United States Patent and Trademark Office from the rejection of claims 1-18 of the above-identified patent application. Claims 1-18 were rejected for a second time in the final Office Action dated July 13, 2005. In compliance with MPEP 1204.01,

we ask that the Commissioner apply the previously paid appeal fee to the Notice of Appeal herewith, as no final Board decision has been made on the Appeal filed January 17, 2006. However, please charge any deficiency, or credit any overpayment to Deposit Account No. 13-0014. Also, please provide any extension of time which may be necessary and charge any fees which may be due to Deposit Account No. 13-0014, but not to include any payment of issue fees.

**(1) REAL PARTY IN INTEREST**

Lucent Technologies, Inc. is the owner of this patent application, and therefore the real party in interest.

**(2) RELATED APPEALS AND INTERFERENCES**

There are no related appeals or interferences in this case.

**(3) STATUS OF CLAIMS**

Claims 1-20 are pending in the application. Claims 19-20 have been withdrawn from consideration.

Claims 1-18 stand rejected and form the subject matter of this appeal. Claims 1-18 are shown in the Appendix attached to this Second Appeal Brief.

**(4) STATUS OF AMENDMENTS**

Applicants filed a Response to Office Action dated April 13, 2005 ("Response") responsive to an Office Action dated January 13, 2005 ("First Office Action"). A final

Office Action dated July 13, 2005 was designated by the Examiner to be responsive to the Response.

Applicants filed an Appeal Brief on January 17, 2006, appealing the rejection in the final Office Action of July 13, 2005. The Examiner then withdrew the case from appeal and issued a new Office Action dated May 8, 2006 ("Post Appeal Action")

#### **(5) SUMMARY OF THE CLAIMED SUBJECT MATTER**

Claim 1 is directed to a method for communicating information between a plurality of local area network sections having different transmission speeds, the plurality of local area network sections employing a physical layer protocol in which an unsuccessful transmission is communicated to a transmission source prior to completion of the transmission. By way of non-limiting example, the hub 102.1 and terminals 105, 106 form a first local area network section and the hub 102.3 and terminals 109, 110 form a second local area network section. (See, e.g., Application at Fig. 1). The hubs 102.1 and 102.3 operate using different transmission speeds. (See specification at p.7, lines 11-21). Communication between terminals connected to hubs 102.1 and 102.3 is accomplished within the physical layer protocol in which a collision (unsuccessful transmission) is signaled to the source of a packet before the packet is completely transmitted from the source. (See *id.* at p.9, lines 10-12)

The claimed method includes a step of receiving, within the physical layer protocol, a packet that is transmitted from a source terminal in a source network section having a source transmission speed to a destination terminal in a destination network section having a destination transmission speed, the destination transmission speed differing from the

source transmission speed. By way of non-limiting example, a packet from “source” terminal 105 is transmitted to a “destination” terminal 109, and the source network section has a different speed than the destination network section. (See *id.* at p.7, lines 11-21).

The packet transmitted from the terminal 105 is received by a front end interface 202.1 of the space division switch 101. (See specification at p.8, lines 12-17; p.10, lines 12-19; p.11, lines 5-14). The packet is received by the space division switch (and indeed completely processed) within the physical layer protocol. (See, e.g., Specification at p.9, lines 10-12).

The claimed method also includes determining the transmission speed for the destination terminal. (See, e.g., p.7, lines 17-23). The method also includes re-transmitting, within the physical layer protocol, the received packet to the destination network section at the destination transmission speed. (See, e.g. p.10, lines 10-13; p.12, lines 4-8; page 22, lines 1-9).

Claim 11 is directed to a method for communicating information between a plurality of local area network sections having different transmission speeds. By way of non-limiting example, the hub 102.1 and terminals 105, 106 form a first local area network section and the hub 102.3 and terminals 109, 110 form a second local area network section. (See, e.g., Application at Fig. 1). The hubs 102.1 and 102.3 operate using different transmission speeds. (See specification at p.7, lines 11-21).

The claimed method includes a step of receiving a packet that is transmitted from a source terminal in a source network section having a source transmission speed to a destination terminal in a destination network section having a destination transmission speed, the destination transmission speed differing from the source transmission speed. By

way of non-limiting example, a packet from “source” terminal 105 is transmitted to a “destination” terminal 109, and the source network section has a different speed than the destination network section. (See *id.*) The packet transmitted from the terminal 105 is received by a front end interface 202.1 of the space division switch 101. (See specification at p.8, lines 12-17; p.10, lines 12-19; p.11, lines 5-14).

The claimed method also includes determining the transmission speed for the destination terminal. (See, e.g., p.7, lines 17-23). The claimed method further includes determining whether the destination network section is not busy prior to receiving all of the packet. Referring again to the disclosed exemplary embodiment, the space division switch 101 determines if a destination network including hub 102.3 is busy/not busy. (Specification at p.8, lines 18-23 and p.9, lines 1-9). If the destination network is busy, then a collision is signaled, and is signaled before the transmission of the packet to the space division switch 101 is complete (*Id.* at p.9, lines 10-12). Because the collision is signaled before the transmission of the packet to the switch 101 is complete, then the busy/not busy determination must necessarily be completed before the transmission of the switch 101 is complete.

Referring again generally to claim 11, the method further includes re-transmitting the received packet to the destination network section at the destination transmission speed if the destination network section is determined to be not busy. (See, e.g., *id.* at p.8, lines 18-23).

**(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 1-18 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Applicant's Admitted Prior Art (hereinafter "Admitted Art") in view of U.S. Patent No. 5,560,038 to Haddock (hereinafter "Haddock"), in further view of Examiner's Official Notice.

**(7) ARGUMENT**

A. The Obviousness Rejection of Claim 1

Claims 1 stands rejected as allegedly being unpatentable over Admitted Art in view of Haddock, in further view of Examiner's Official Notice. As will be discussed below in detail, for one or more independent reasons, the Examiner's obviousness rejection of claim 1 is in error and should be withdrawn.

1. The Present Invention

As discussed above, claim 1 is directed to a method for communicating information between a plurality of local area network sections having different transmission speeds. The plurality of local area network sections employ a physical layer protocol in which an unsuccessful transmission is communicated to a transmission source prior to completion of the transmission. The method includes a step of receiving, within the physical layer protocol, a packet that is transmitted from a source terminal in a source network section having a source transmission speed to a destination terminal in a destination network section having a destination transmission speed. The destination transmission speed differs



from the source transmission speed. The method also includes determining the transmission speed for the destination terminal, and re-transmitting, within the physical layer protocol, the received packet to the destination network section at the destination transmission speed.

Thus, the above invention transmits packet information between two different networks that employ different transmission speeds, and does so within the physical layer protocol.

## 2. Admitted Art

The Admitted Art describes a switch interface unit that allows multiple LANs to be connected at the physical layer. The switch interface unit obtains a destination address from a received packet, determines if there is activity on the LAN of the destination address, and sends a collision to the source of the packet if the destination is busy, all before the source finishes transmitting the packet.

The Examiner correctly acknowledges that the Admitted Art:

fails to teach the destination transmission speed differing from the source transmission speed, b) determining the transmission speed for the destination terminal, and c) re-transmitting, within the physical layer protocol, the received packet to the destination network section at the destination transmission speed.

(Post Appeal Action at p.3).

## 3. Haddock

Haddock teaches a translation engine for translating frames of data from one frame format to another frame format. The translation engine has a variable length data pipeline capable of maintaining a constant synchronous data stream comprising frames of data from

the input to the output of the data pipeline. Haddock employs the technology specifically in a packet layer switch. (Haddock at col. 6, lines 14-19; col. 7, lines 3-9).

4. Examiner's Official Notice is the Same as the Admitted Art

The Examiner's Official Notice is set forth below, verbatim:

Although neither AAPA nor Haddock explicitly teach receiving and transmitting data packet within the physical layer, Examiner takes Official Notice (see MPEP § 2144.03) that in a computer networking environment, this feature is well known in the art at the time the invention was made.

(Post Appeal Action at p.4)

Thus, the Examiner's Official Notice appears to be that receiving and transmitting a data packet within the physical layer is known in a computer networking environment. Applicants do not dispute this. However, Applicants further note that receiving and transmitting a data packet within the physical layer is taught by the Admitted Art. (See Specification of the Application at p.1, lines 8 to 17). Thus, it is not clear how this rejection differs from the rejection that was originally appealed.

Because the Admitted Art and Examiner's Official Notice appear to be cumulative, they will be referred to interchangeably hereafter as simply the "Admitted Art".

5. The Proposed Combination Does Not Arrive at the Invention of Claim 1

The Examiner alleged that it would have been obvious to modify the Admitted Art to overcome its substantial deficiencies with respect to claim 1. As discussed above, the Examiner conceded that the Admitted Art failed to disclose "determining the transmission speed for the destination terminal", which differs from the source transmission speed, and "re-transmitting, within the physical layer protocol, the received packet to the destination network section at the destination transmission speed". (Post Appeal Action at p.3)

To address these deficiencies in the Admitted Art, the Examiner alleged that:

Haddock teaches the destination transmission speed differing from the source transmission speed, b) and c) [citations omitted]. At the time the invention was made, one of ordinary skill in the art would have been motivated to determine the transmission speed for the destination terminal and re-transmit, within the physical layer protocol, the received packet to the destination network section at the destination transmission speed in order to interconnect heterogeneous networks that operate at different transmission speeds, therefore maximizing the throughput of the data transmission.

(Post Appeal Action at p.3).

As an initial matter, it is noted that the Examiner has alleged that Haddock teaches step c) of claim 1, which is “transmitting, *within the physical layer protocol*, the received packet to the destination network section at the destination transmission speed”. However, the Examiner later states that “neither AAPA nor Haddock explicitly teach receiving and transmitting data packet within the physical layer”. (*Id.* at p.4).

Thus, it appears that the Examiner has only alleged that Haddock teaches re-transmitting at a different speed at *some layer*, but *not* the physical layer. If so, then the Examiner is correct. Haddock teaches receiving packets and re-transmitting packets at a different speed at the MAC layer or packet layer.

As a consequence, even if the Admitted Art (and Examiner’s Official Notice Art) were modified by the teachings of Haddock, the resulting combination would handle connection between networks of different speeds at the packet layer, not the physical layer.

Accordingly, the proposed combination of the Admitted Art, Haddock and the Examiner’s Official Notice does not arrive at the invention.

5. No Motivation to Implement MAC Layer Operations of Haddock in the Physical Layer Switch of the Admitted Art

Even if the Examiner’s proposed combination somehow arrived at the invention of claim 1, there is no motivation or suggestion found within Haddock and/or the Examiner’s

Official Notice to modify the Admitted Art as proposed.

As an initial matter, there is no motivation or suggest to incorporate MAC layer switch features within the physical layer framework. The requirements of switching and communicating at the physical layer and packet layer are substantially different. Thus, there is no motivation or suggestion within Haddock to modify the switch interface unit of the Admitted Art to switch packets between networks of different speeds, *at the physical layer*.

In particular, the type of data translation operations taught by Haddock are not compatible with data retransmission within the physical layer protocol because the Haddock switch is a *store and forward device*. Store and forward devices such as MAC switches do not switch data at the physical layer. Instead, the MAC switch of Haddock tears apart each frame of data and regenerates a new frame. (See Haddock at col. 9, lines 20-38). Moreover, Haddock specifically identifies that the device disclosed therein is a “data link layer” device, and not a physical layer device. (*Id.* at col. 8, lines 28-50).

Haddock provides no teaching applicable to a physical layer device with respect to the translation of data speeds. Accordingly, one of ordinary skill in the art would not be motivated by Haddock to modify the Admitted Art device as proposed by the Examiner because one of ordinary skill in the art would have no suggestion on how to carry out such a modification.

As discussed above, the Examiner provided the following reasoning for modifying the Admitted Art:

Haddock teaches the destination transmission speed differing from the source transmission speed, b) and c) in col. 3, lines 13-29 . . . At the time the invention was made, one of ordinary skill in the art would have been motivated to determine the transmission speed for

the destination terminal and re-transmit, within the physical layer protocol, the received packet to the destination network section at the destination transmission speed in order to interconnect heterogeneous networks that operate at different transmission speeds, therefore maximizing the throughput of the data transmission.

(Post Appeal Action at p.3).

Haddock does not address the particular requirements of performing a switching operation in the physical layer, much less physical layer switching operations between networks using different speeds. Haddock, and the prior art cited in the background section of Haddock, relates to packet layer switching. There is no teaching or suggestion that *any* of the novel techniques of Haddock are applicable in a physical layer switch such as that of the Admitted Art. There certainly is no teaching that applying the novel techniques of Haddock to the Admitted Art would result in *any* advantage.

Moreover, Haddock teaches away from the present invention by suggesting that buffering *more* frames is advantageous. In particular, Haddock discusses a prior art *packet layer switch* as having a disadvantage because it does *not* “provide for buffering for any frames of data”. (Haddock at col. 5, lines 44-46). If Haddock cites such a disadvantage of other packet layer switches (which do store and forward packets), Haddock certainly would teach away from the Admitted Art switch that does not even store and forward packets.

Accordingly, it is respectfully submitted that there is no legally sufficient motivation or suggestion to modify the physical layer switch of the Admitted Art/Examiner’s Official Notice to carry out the packet layer switching operations of Haddock. As a consequence, it is respectfully submitted that the obviousness rejection of claim 1 is in error and should be reversed.

7. Conclusion as to Claim 1

As a consequence, the rejection of claim 1 over the Admitted Art, Haddock and Official Notice should be reversed because there is no legally sufficient motivation or suggestion to make the proposed combination, and, even if there were sufficient reasons to combine, the resulting combination would not arrive at the claimed invention.

B. Claims 2-10

Claims 2-10 also stand rejected as allegedly being obvious over the Admitted Art in view of Haddock. Claims 2-10 depend from and incorporate all of the limitations of claim 1. Accordingly, for at least the same reasons as those set forth above in connection with claim 1, it is respectfully submitted that the rejection of claims 2-10 over the prior art should be withdrawn.

1. Claims 4-6 are Allowable for Additional Reasons

Claim 4 is allowable for reasons additional to those set forth above in connection with claim 1. In particular, claim 4 recites that the re-transmission of the received packet commences before the source terminal completes its transmission of the packet.

In other words, step c) of claim 1 commences before step a) of claim 1 is completed. As a result, the incoming packet is passed on to the destination terminal (having a different network speed) before the incoming packet has completely been received by the switch.

The combination of the Admitted Prior Art, Haddock and the Examiner's Official Notice fails to arrive at the invention of claim 4. In particular, Haddock teaches storing multiple packets before re-transmitting the packets to another network of a different speed.

(See, e.g., Haddock at col. 15, lines 33-42). Accordingly, if one of ordinary skill in the art were to modify the Admitted Prior Art with the teaching of Haddock of transferring packets between networks having different speeds, the resulting combination would use the Haddock method of storing multiple packets during the switching operation. Because multiple entire packets are stored, a single packet cannot be re-transmitted before it is completely received as claimed in claim 4.

Thus, the proposed combination of the Admitted Art, Haddock and the Examiner's Official Notice does not arrive at the invention of claim 4 for reasons in addition to those set forth above in connection with claim 1. For all of these reasons, the rejection of claim 4 over the Admitted Art and Haddock should be reversed.

Claims 5 and 6 depend from claim 4 and are therefore allowable for at least the same reasons.

C. Claim 11

Independent claim 11 also stands rejected as allegedly being obvious over the Admitted Art in view of Haddock. As with claim 1, the Examiner relies on the teachings of Haddock to modify the physical layer switch of the Admitted Art/Examiner's Official Notice to incorporate the ability to switch data between networks having different transmission speeds.

Claim 11 differs from claim 1 for a few reasons. For example, claim 11 differs from claim 1 in that claim 11 recites a step of "determining whether the destination network section is not busy prior to receiving all of the packet". It is respectfully submitted that for reasons similar to, but distinguishable from, those described above in connection with claim

1, there is no motivation or suggestion to modify the Admitted Prior Art as proposed by the Examiner. It is therefore submitted that the Examiner has failed to set forth a prima facie case of obviousness.

1. There is No Motivation or Suggestion to Make the Combination

As with claim 1, the Examiner alleges that it would be obvious to modify the Admitted Art such that it determines the transmission speed for the destination terminal, which differs from the source transmission speed. In other words, the Examiner alleges that it would be obvious to modify the Admitted Art to transfer packets between terminals on network sections having different transmission speeds. (Final Office Action at p.7). The Examiner alleges that Haddock provides such a teaching.

Applicants submit that one of ordinary skill in the art would not modify the Admitted Art based on the teachings of Haddock. As discussed above, Haddock teaches a transport layer switch that stores and forwards packets to effect communication between networks having different transmission speeds. (See, e.g., Haddock at col. 8, lines 29-50, col. 15, lines 33-39).

Modification of the Admitted Art as proposed by the Examiner would essentially require that the switch of the Admitted Art be converted to a store and forward device in order to carry out the transmission speed translation operation taught by Haddock. Such a modification would completely eliminate the primary advantage of the switch of the Admitted Art: effecting switching between networks at the *physical* layer. (See Specification at p.2, line 6 to p.3, line 17). In other words, the basic store and forward



architecture of Haddock is precisely the type of architecture the Admitted Art was attempting to avoid.

Thus, one of ordinary skill in the art would not modify the Admitted Art as proposed by the Examiner.

2. The Examiner Fails to Set Forth a Legally  
Sufficient Motivation or Suggestion to Combine

More importantly, the Examiner simply has not alleged a legally sufficient motivation or suggestion to modify the Admitted Art as proposed. In particular, the Examiner set forth the following reasoning for making the modification of the Admitted Prior Art:

At the time the invention was made, one of ordinary skill in the art would have been motivated to enable the transmission speed to be different from the source transmission speed, and to determine the transmission speed for the destination in order to interconnect heterogeneous networks that operate at different transmission speeds, therefore maximizing the throughput of the data transmission.

(Final Office Action at p.7).

It appears that the Examiner is alleging that Haddock and/or the Examiner's Official Notice provides a suggestion that maximizing the throughput of data transmission may be accomplished by interconnecting heterogeneous networks that operate at different transmission speeds *in a physical layer switch*.

However, none of the prior art teaches or implies that a physical layer switch can achieve "maximized throughput" in the context of heterogeneous networks. To the contrary, Haddock clearly teaches a method for interconnecting heterogeneous networks *without* modifying a *physical layer switch* to do so. Haddock does not teach *any* methods or techniques for maximizing throughput in a *physical layer switch* such as that of the

Admitted Art, much less a technique that involves interconnecting heterogeneous networks having different transmission speeds.

Haddock does not even imply that techniques or methods of “maximizing throughput” are often applicable to all layers of the OSI protocol. Instead, Haddock teaches a very specific MAC-layer device for translating between different protocols.

As a consequence, it is respectfully submitted that the Examiner has failed to set forth a prima facie case of obviousness with respect to claim 11.

3. Conclusion as to Claim 11

For all the foregoing reasons it is respectfully submitted that the obviousness rejection of claim 11 over the Admitted Prior Art and Haddock should be reversed.

D. Claims 12-18

Claims 12-18 also stand rejected as allegedly being obvious over the Admitted Art and Haddock. Claims 12-18 depend from and incorporate all of the limitations of claim 11. Accordingly, for at least the same reasons as those set forth above in connection with claim 11, it is respectfully submitted that the rejection of claims 12-18 over the prior art should be reversed.

1. The Rejection of Claim 12 Should be Reversed for Additional Reasons

The rejection of claim 12 should be reversed for additional reasons. Claim 12 further recites that the packet is re-transmitted before the source terminal completes its transmission of that packet. Thus, even if the Admitted Prior Art were modified in such a

way that it provided some switching between homogeneous networks at the physical layer level and some switching between heterogeneous networks at the MAC layer, the resulting device would not switch a packet between two network sections having different transmission speeds, wherein a packet is re-transmitted at the second transmission speed before it is completely received at the first transmission speed. In other words, even if some strange device were built that combined packet layer switching and physical layer switching (to obtain the functionalities of the Admitted Art and Haddock), it is the packet layer switch that would switch between networks of different transmission speeds, and the packet layer switch will not start retransmission of a packet prior to the source terminal finishing its transmission of the packet.

Thus, even if the prior art provided a motivation or suggestion to combine the references (in a very peculiar way), which it does not, the resulting combination would not arrive at the invention of claim 12. Accordingly, for reasons additional to those set forth above in connection with claim 11, it is submitted that the rejection of claim 12 over the Admitted Art and Haddock should be reversed.

**(8) CONCLUSION**

For all of the foregoing reasons, claims 1-18 are not unpatentable under 35 U.S.C. § 103(a). As a consequence, the Board of Appeals is respectfully requested to reverse the rejection of these claims.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'H. Moore', written over the words 'Respectfully submitted,'.

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## CLAIM APPENDIX

1. A method for communicating information between a plurality of local area network sections having different transmission speeds, the plurality of local area network sections employing a physical layer protocol in which an unsuccessful transmission is communicated to a transmission source prior to completion of the transmission, the method comprising the steps of:

- a) receiving, within the physical layer protocol, a packet that is transmitted from a source terminal in a source network section having a source transmission speed to a destination terminal in a destination network section having a destination transmission speed, the destination transmission speed differing from the source transmission speed;
- b) determining the transmission speed for the destination terminal; and
- c) re-transmitting, within the physical layer protocol, the received packet to the destination network section at the destination transmission speed.

2. The method of claim 1, further comprising, prior to step c, determining whether the destination network section is busy prior to the re-transmitting step.

3. The method of claim 2, further comprising, after step b, determining whether the destination network section is busy prior to the re-transmitting step.

4. The method of claim 1, wherein the step c further comprises commencing re-transmission of the received packet before the source terminal completes its transmission of the packet.
5. The method of claim 4, further comprising delaying the re-transmission of the received packet.
6. The method of claim 5, further comprising:
  - commencing re-transmission of the received packet at a higher speed after receiving only a portion of the received packet;
  - re-transmitting the received packet continuously at the higher speed; and
  - completing re-transmission of the received packet after completely receiving the received packet.
7. The method of claim 1, further comprising:
  - controlling a cross point to connect the source network section to the destination network section.
8. The method of claim 2, further comprising:
  - controlling a first cross point to unilaterally connect the destination network section to an interface circuit;
  - employing the interface circuit to determine whether the destination network section is busy.

9. The method of claim 8, further comprising:

controlling a second cross point to unilaterally connect the source network section to the destination network section if the interface circuit determines that the destination network section is not busy.

10. The method of claim 8, further comprising:

signaling a collision to the source network section if the interface circuit determines that the destination network section is busy.

11. A method for communicating information between a plurality of local area network sections having different transmission speeds, the method comprising the steps of:

a) receiving a packet that is transmitted from a source terminal in a source network section having a source transmission speed to a destination terminal in a destination network section having a destination transmission speed, the destination transmission speed differing from the source transmission speed;

b) determining the transmission speed for the destination terminal;

c) determining whether the destination network section is not busy prior to receiving all of the packet; and

d) re-transmitting the received packet to the destination network section at the destination transmission speed if the destination network section is determined to be not busy.

12. The method of claim 11, wherein the step c further comprises commencing re-transmission of the received packet before the source terminal completes its transmission of the packet.

13. The method of claim 11, further comprising delaying the re-transmission of the received packet.

14. The method of claim 13, further comprising:  
commencing re-transmission of the received packet at a higher speed after receiving only a portion of the received packet;  
re-transmitting the received packet continuously at the higher speed; and  
completing re-transmission of the received packet after completely receiving the received packet.

15. The method of claim 11, further comprising:  
controlling a cross point to connect the source network section to the destination network section.

16. The method of claim 11, further comprising:  
controlling a first cross point to unilaterally connect the destination network section to an interface circuit;  
employing the interface circuit to determine whether the destination network section is busy.



17. The method of claim 16, further comprising:

controlling a second cross point to unilaterally connect the source network section to the destination network section if the interface circuit determines that the destination network section is not busy.

18. The method of claim 11, further comprising:

signaling a collision to the source network section if the destination network section is determined to be busy.

EVIDENCE APPENDIX

NONE

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RELATED PROCEEDINGS APPENDIX

NONE

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